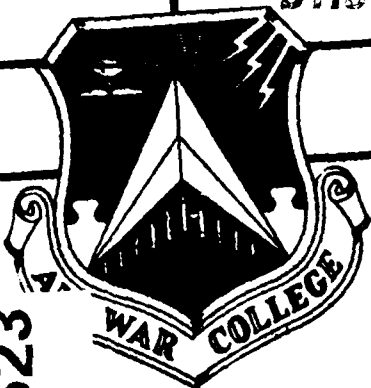


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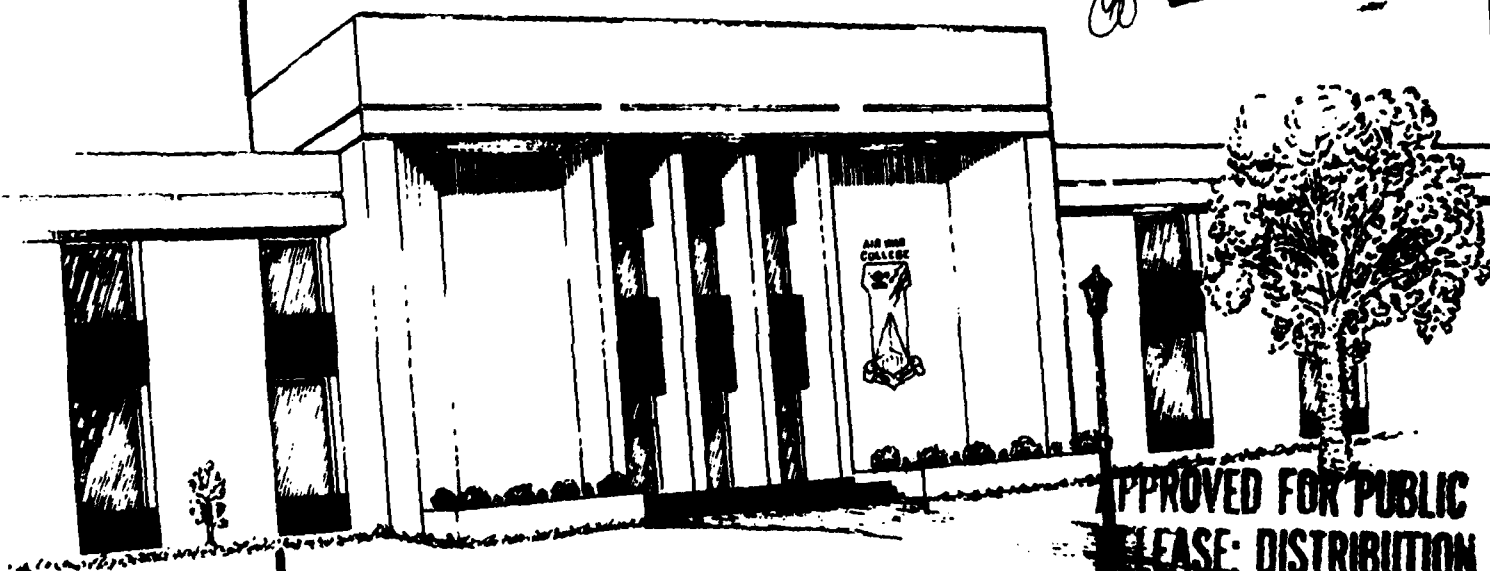
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CRITERIA FOR DEVELOPING A SUCCESSFUL
PRIVATIZATION PROJECT

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COLONEL WALTER E. SMITH

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UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

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CRITERIA FOR DEVELOPING A SUCCESSFUL
PRIVATIZATION PROJECT

by

Thomas C. McSwain, Jr.
Colonel (Sel), USAF

and

Walter E. Smith
Colonel, USAF

A DEFENSE ANALYTICAL STUDY SUBMITTED TO THE FACULTY
IN
FULFILLMENT OF THE CURRICULUM
REQUIREMENT

Advisor: Colonel Charles V. Durham

MAXWELL AIR FORCE BASE, ALABAMA

May 1989

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EXECUTIVE SUMMARY

TITLE: Criteria for Developing a Successful Privatization Project

AUTHORS: Thomas C. McSwain, Jr., Colonel (Sel), USAF and

Walter E. Smith, Colonel, USAF

The purpose of this study was to develop a set of criteria for privatization project proponents to use in bridging the gap between requirements determination and concept development. The study approach involved analyzing successful projects to determine common factors contributing to their success and developing criteria for use when initiating other privatization projects.

Four basic criteria emerged in the study. A project management team approach should be used with a multi-disciplined working group, key leadership involvement, and an up-front commitment of required resources. The project must be beneficial to the government and should be structured so that it provides a savings over the status quo, privatization life-cycle costs equal to or less than the MCP, ^(E + 10%) alternative, and greater value than the MCP through benefits that the MCP would not normally provide. The project must be acceptable to the government and should be structured to attain legal and environmental sufficiency, support by the MAJCOM, Air Staff and DOD, community support, support by state and federal agencies outside DOD, and acceptance in Congress by appropriate subcommittees and local US delegations. The project must be structured so as to be attractive to industry by providing a low risk perception and adequate profit. (23) 21

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Colonel (Sel) Thomas C. McSwain, Jr is a career Services Officer. He received a Bachelor of Science degree in Commerce from the University of Virginia in 1968 and holds a Master of Science degree in Logistics Management from the Air Force Institute of Technology. His Air Force career as a Services Officer, Executive Officer, and Squadron Commander took him to Mountain Home AFB, ID, Andersen AFB, Guam, Ellsworth AFB, SD, Offutt AFB, NE, Osan AB, Republic of Korea, and to the Air Force Engineering and Services Center, Tyndall AFB, FL where he served as a Division Chief, Deputy Director of Housing and Services, and Director, Privatization Strategies Program Office. He is a graduate of Squadron Officer School, Air Command and Staff College, and Air War College, class of 1989.

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Colonel Walter E. Smith is a career Civil Engineering Officer. He received a Bachelor of Science degree in Engineering from Tuskegee Institute, Alabama in 1963 and holds a Master's degree in Public Administration from the University of Colorado. His Air Force assignments have taken him to Georgia, California, Ohio, Thailand, Korea, Colorado, Texas, Israel, and Illinois. He served as a squadron commander at Pope AFB, NC and Scott AFB, IL. He is a graduate of Squadron Officer School, Air Command and Staff College, National Defense University, and Air War College, class of 1989.

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CHAPTER I

INTRODUCTION

General

Privatization involves finding ways to transfer government programs and functions to the private sector so they can be provided more efficiently by private citizens, businesses, and organizations. (1:28) It is aimed at achieving high quality goods and services for the government at lower costs and in a more expeditious manner than through traditional methods of provision. (2:4-5) This transfer of functions normally involves financing, design, engineering, construction, and operation by the private sector in lieu of traditional governmental financing and operation. In return, private sector entrepreneurs realize profits through long-term operation of the functions.

Privatization in the United States "has accelerated at the state and local levels primarily because of 'taxpayer revolts' during the late 1960s and 1970s." (2:5) According to a report from the International City Management Association, over sixty functions have been privatized by state and local governments. These functions include many different entities such as water and waste water treatment, refuse collection and disposal, transportation, utilities, prisons, hospitals, and many others. (2:5)

As the result of Federal budget realities, the Department of Defense (DOD) is becoming increasingly interested in privatization as an additional means for construction of military facilities. The potential

for privatization projects in DOD "is as great as the number of military infrastructure projects that slip between the cracks in the competition for defense dollars." (3:6)

Privatization of facilities in DOD is not new. Most of the family housing units in the United States were obtained through privately financed contracts authorized by the Capehart Act (4:1-2) and many of the family housing units in Europe were built using long-term leases to attract private developers. The longstanding existence of commercial banks and credit unions on military installations is also a form of privatization. In these cases, the government leases land to banks and credit unions on which they construct a facility to provide banking and financial services to the base military and DOD civilian community. The banks and credit unions derive normal profit through services they provide.

More recently, Congressional and Administration policies have encouraged the continuing evolution of privatization in DOD.

Laws allowing expanded use of third-party financing for housing and energy production in the U.S. were written into a number of bills passed when the Republicans controlled the Senate in the early 1980s. (3:6)

Within the Air Force, there is new interest on the part of Air Force leaders at many organizational levels in pursuing privatization of selected facilities and services. This interest is aimed at achieving reduced costs, faster delivery, and greater value than that provided by traditional government budgeting and acquisition processes for these facilities and services. (4:3-1; 5:1)

For example, the cogeneration energy plant at Chanute AFB, to be built with private capital, is projected to save \$98.5 million over its 27-year life; visitors quarters projects at Wright-Patterson and Nellis AFBs are expected to save \$16.7 million and \$23.5 million, respectively, over a 40-year life; and military family housing initiatives at March and Carswell AFBs are projected to avoid costs of \$24.5 million and \$11.2 million, respectively, over a 20-year life. (6:1-1)

To date, approximately 98 privatization projects are under development by commanders throughout the Air Force because of potential project benefits. About one-half of these projects are being developed to help satisfy the need for 12,000 Military Family Housing (MFH) units and the remainder cover a broad range of facility categories such as transient housing, child care, administrative, energy production, waste water treatment, and many others. (6:1-1; 7)

Privatization of facilities and services in the Air Force usually requires innovative approaches. For example, the cogeneration energy plant at Chanute AFB is being built by a private firm to replace the government-owned, coal-fired, steam plant constructed in 1940. The creative privatization solution involved a privately financed, constructed, and operated gas-fired, cogeneration facility on government land leased by the Air Force to the private firm. The private firm will generate most of its income by selling electricity, the primary product of the cogeneration process, to a public utility and will provide the by-product, steam, to meet the base's requirement at a greatly reduced cost. (8:7-8)

The Chanute example illustrates that creative thinking and careful conceptualization and planning are required when pursuing privatization projects. In fact, privatization project proponents need to know how to bridge the gap from a validated Air Force requirement to

achieving an innovative privatization solution to satisfy the requirement.

Purpose

The purpose of this study is to develop a set of criteria to help project proponents bridge this gap between requirements determination and concept development. The general approach is to analyze selected privatization projects to determine common threads and develop criteria that can be used by project proponents when initiating proposed privatization actions.

Overview

Chapter II includes a brief history of privatization in the Air Force, an overview of the privatization process, and a discussion of the problem addressed in this study. Chapter III contains a discussion of study methodology including selection of projects for analysis, methods of acquiring information about these projects, and the analysis framework. Chapter IV includes the analysis. A detailed synopsis of each project selected for study is included in Appendix C.

CHAPTER II

BACKGROUND

This chapter provides a brief historical survey of recent privatization initiatives in the Air Force, an overview of the process used to pursue privatization projects in the Air Force, and a more detailed discussion of the problem addressed by this study. The historical overview shows the evolutionary nature of privatization in the Air Force, the potential for using private capital in lieu of Congressional appropriations to solve Air Force facility and services needs, the complexity of pursuing a privatization project, and sets the stage for a discussion of the problem addressed in this study.

Historical Survey of Air Force Privatization

As mentioned earlier, privatization, per se, is not new to the Air Force. Recently, Congressional and Administration policies have encouraged the continuing evolution of privatization. The 97th Congress enacted Public Law (P.L.) 97-214, Contracts for Energy or Fuel for Military Installations, which was codified in 10 U.S.C. 2394. This legislation required the military services to investigate third party financing or privatization of individual energy plants before prospective projects could be considered for authorization and appropriation in the military construction program (MCP). The legislation also provided authority to enter into contracts for up to 30 years to enable a privatization approach if that approach provided a lower life cycle cost than production of energy by a government

constructed and operated plant. (4:2-3) Even though the costs of energy would be paid from annual appropriations, the legislation provided for a sufficiently long contracting period to attract entrepreneurs to invest significant sums of capital.

This legislation formed the basis of the concept for the cogeneration project at Chanute AFB, IL. Success on the Chanute AFB project later led to energy projects at Galena AS, AK and MacDill AFB, FL.

Similarly, 42 U.S.C. 8287 allows 25-year contracts in which entrepreneurs propose, finance, perform, and maintain energy efficient retrofits to government facilities. The entrepreneurs are paid out of annual cost savings resulting from the retrofits. (8:7-7) Although several of these shared energy savings projects are being pursued, it is too early in their development to tell if they will be successful. (9)

In family housing, the Air Force has had a longstanding authority under 10 U.S.C. 2828 to enter 10-year leases for family housing units constructed by private firms and/or others overseas. In these build/lease projects, the government pays lease costs from annual appropriations and the members occupying the units forfeit housing allowances.

In 1984, the 98th Congress enacted P.L. 98-115 which provided similar privatization concepts for family housing in the United States. Section 801 of this law enabled the Services to enter 20-year leases for family housing units constructed by private firms. Under this arrangement, the government would pay lease fees and military families would occupy the units and forfeit housing allowances. Section 802 of

this law provided for 25-year contracts with entrepreneurs to enable rental guarantee housing projects. Under the 802 concept, entrepreneurs rent housing units to military families at specific rates and the government guarantees payment of rents if occupancy falls below 97 percent. (4:2-3 thru 2-4)

The overseas build/lease program has been very successful with over 7,600 units completed or under development at 22 air bases. Implementation of Section 801 housing in the US has also been relatively successful with projects for 863 units completed at four bases and projects for 3,300 units in advanced states of development/award at eight bases. Implementation of Section 802 housing has not been successful to date because rental rates are capped by quarters allowances, effectively limiting expenditures on construction to about \$35,000 per unit. (10)

Another overseas privatization project using the authority of 10 U.S.C. 2675, Foreign Build/Lease (other than family housing), would provide a maintenance complex at Frankfurt AB, Federal Republic of Germany, for use by US forces. This privatization approach negated four military construction projects totaling over \$19 million.

Early work on the Chanute AFB energy project, successes in the overseas build/lease family housing program and expansion of that concept to the United States, and guidance from the Senate Armed Services Committee "to identify construction projects which would lend themselves to financing alternatives to the normal military construction process" (11) caused Air Force leaders to consider projects in other facility categories. In early FY 84, the Air Force Director of

Engineering and Services (HQ USAF/LEE) directed the Air Force Engineering and Services Center (AFESC) to evaluate using privatization to provide Visiting Officers Quarters (VOQ) and a Conference Center at Bolling AFB in Washington DC. Command section interest at Air Force Logistics Command led to consideration in the same study of a similar VOQ/Conference Center for Wright-Patterson AFB, OH. (12:2-1)

While the Chanute AFB energy project and family housing privatization concepts discussed above were developed for contracting under specific legislation enacted for those purposes, the Bolling and Wright-Patterson Visitors Quarters (VQ) project concepts proposed outleasing government land to a private entrepreneur for one dollar for 40 years using the existing, unspecified authority of 10 U.S.C. 2667. As a condition of the nominal cost lease, the entrepreneur would finance, build, own, and operate a visitors quarters and conference center similar to mid price/quality hotels and the government would not guarantee occupancy or make any financial commitments. Instead, government travelers would pay to use the facility and receive normal per diem reimbursements when in an "official duty" travel status. Those not in an "official duty" travel status could also use the facility at their own expense. (4:2-4; 13)

Application of this unspecified authority was conceived by the Air Force Assistant General Counsel (Installations and Environmental Law). Pursuant to reporting requirements outlined in 10 U.S.C. 2662, the Air Force's intent to use 10 U.S.C. 2667 as the authority for the Bolling and Wright-Patterson VQ projects was reported to the Armed Services Committees of the House and Senate on 9 July 1986. (13) Based

on apparent support during early Congressional deliberations, Tactical Air Command developed a similar privatization project for a Visiting Airmen Quarters to house Red Flag and other exercise participants at Nellis AFB, NV. Air Force intent to use 10 U.S.C. 2667 as the authority for this Red Flag VQ was reported to the House and Senate Armed Services Committees on 27 February 1987. (14)

After deliberations on these proposals to lease land for privatization of Visitors Quarters, Congress, on 24 July 1987, approved pursuing the Nellis and Wright-Patterson projects, but indefinitely deferred the Bolling project pending outcome of the other projects and a DOD study of the "long-term tenure and location of administrative activities in the National Capital Region." (15)

Concurrent with development of the VQ projects, an innovative US Army project for a mobile-home complex at Fort Ord, CA made a similar application of this statute. At Fort Ord, there was a serious shortage of housing for junior enlisted personnel. Waiting lists for base housing contained 2,500 names including over 2,000 junior enlisted personnel. Community housing was limited and very expensive. (16:4; 17)

Under command pressure to solve the problem quickly, the Director of Engineering and Housing at Fort Ord decided to competitively lease 60 acres of government land to an entrepreneur at a nominal fee for 25 years. As a condition of the lease, the entrepreneur would finance, build, operate, and maintain 220 mobile homes to help satisfy the requirement. (16:4-6)

The Director of Engineering and Housing garnered command, community, and Congressional support and nurtured industry interest in

the concept. Approval to proceed was obtained and a competitive RFP was issued. The winning proposal provided mobile home housing units averaging \$200 per month below community housing costs and provided 24-hour management capability. The proposal also included streets, landscaping, a community center, athletic field, basketball courts, jogging and bike trails, a camping area, and two service areas with laundromats, car wash areas, playgrounds, and a mail room. The project was completed (from concept development to occupancy) in 9 months compared to a minimum of 3 years required for the MCP. 16:4-10)

Unlike Section 801 and 802 family housing initiatives, the government provided land at a nominal cost to help reduce rents and members paid rental fees for the mobile homes without financial guarantee or obligation from the government.

Success of the mobile home complex at Fort Ord, coupled with apparent support during early Congressional deliberations on the VQ projects, prompted Strategic Air Command (SAC) to pursue privatization of family housing projects at Carswell and March AFBs using the unspecified outleasing authority of 10 U.S.C. 2667. The SAC concept provided a minimum of 350 and 682 family housing units respectively at Carswell and March on government land leased to an entrepreneur for 50 years. (8:7-3 thru 7-4; 18; 19) The Air Force intent to use 10 U.S.C. 2667 as the authority for these two projects was reported to the House and Senate Armed Services Committees on 18 February 1987 and Congress subsequently approved them. (18; 19)

Concurrent with development of the privatization concepts mentioned above, Congress enacted legislation codified in 10 U.S.C. 2809

to allow tests of long-term (20-year) contracts for privatization projects in seven facility categories: child care, potable and waste water treatment, depot supply, troop housing, transient quarters, administrative services, and hospital/medical facilities. Under this legislation, each Military Service is limited to five contracts, except for child care facilities, and contracts must be entered into before 30 September 1989. (4:2-2)

The preceding historic survey of privatization in the Air Force demonstrates several ways to acquire privatization projects using both contracting and real property authorities. These authorities are summarized in Table 1.

Table 1. Enabling Legislation for Privatization

10 U.S.C. 2934	Energy Production Facilities Program
10 U.S.C. 2667	Real Property Outleasing
10 U.S.C. 2809	Test of Long-Term Facilities Contracts
10 U.S.C. 2828	Build/Lease of Military Family Housing Overseas
10 U.S.C. 2675	Foreign Build/Lease
42 U.S.C. 8287	Shared Energy Savings Programs
Section 801 of P.L. 98-115	Build/Lease of Military Family Housing
Section 802 of P.L. 98-115	Rental Guarantee of Military Family Housing

Enactment of various legislation and apparent Congressional support for innovative use of 10 U.S.C. 2667 for privatization projects has given rise to a host of other privatization projects. For example,

Air Force Systems Command is pursuing privatization of a 1.3 million square foot administrative facility with a 425 thousand square foot Class A vault for Aeronautical Systems Division at Wright-Patterson AFB using the combined authorities of 10 U.S.C. 2809 and 10 U.S.C. 2667. Similarly, Air Force Space Command is studying using privatization to consolidate and rebuild portions of Thule AB, Greenland; Air University is considering the use of privatization for transient quarters and student housing at Maxwell AFB, AL; and Military Airlift Command is looking at using privatization to satisfy existing transient quarters needs as well as those projected to be associated with establishment of the US Transportation Command at Scott AFB, IL. Many other agencies are also looking at the feasibility of various privatization projects. (9)

Air Force Privatization Process

A detailed discussion of the process used to pursue privatization projects under each of the authorities discussed above is beyond the scope of this report. However, a brief introduction to the generic process shown in Figure 1 helps set the stage for discussion of the problem addressed in this study.

Since privatization is a relatively "new business" in the Air Force, little Air Force guidance has been published to date, although it is under development and will be published during early 1989. Most project proponents are relying on guidance in basic legislation to work current projects. As can be seen from Figure 1, pursuit of privatization projects using these basic authorities

. . . generally involves identification of the requirement; economic and technical analyses of alternative ways to satisfy the requirement . . . ; obtaining Air Force, OSD, and

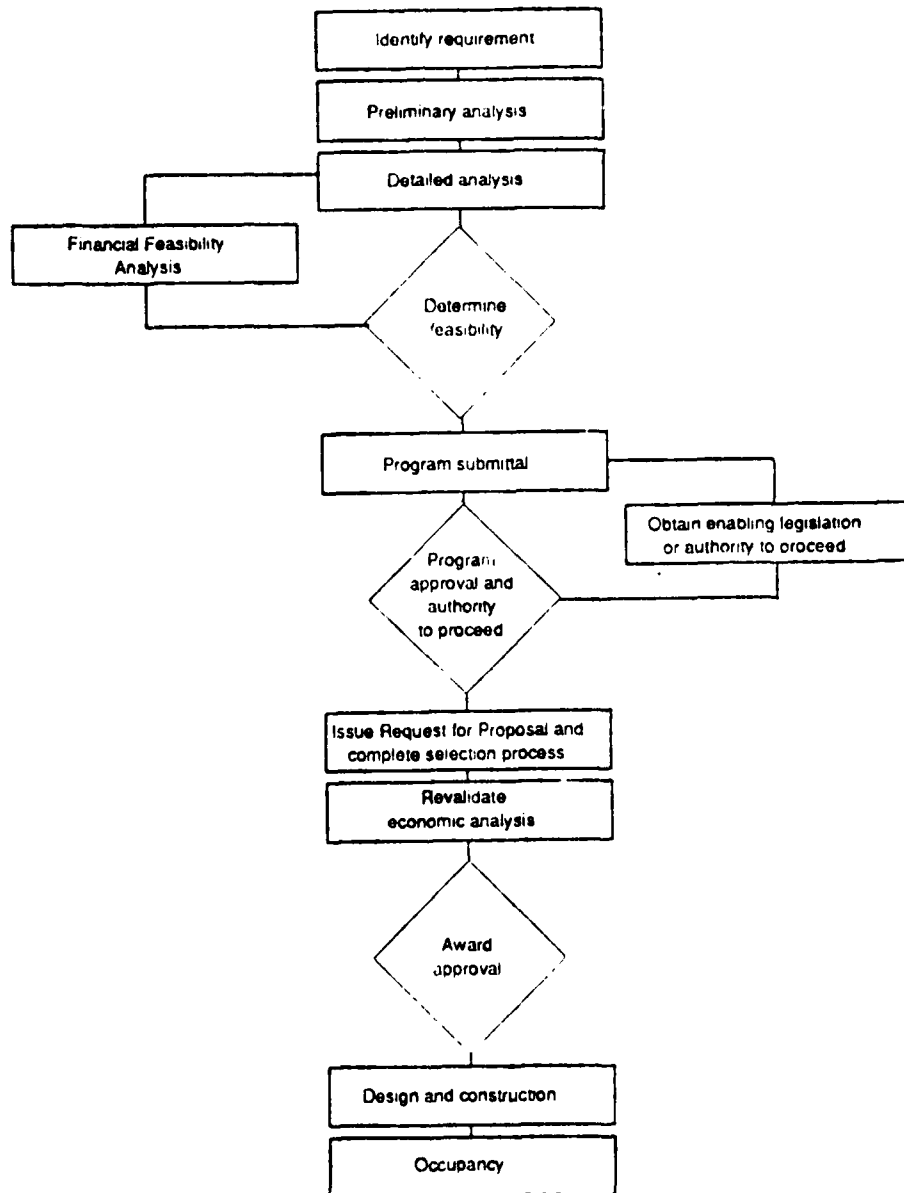


Figure 1. Overview of the Privatization Process (20:15)

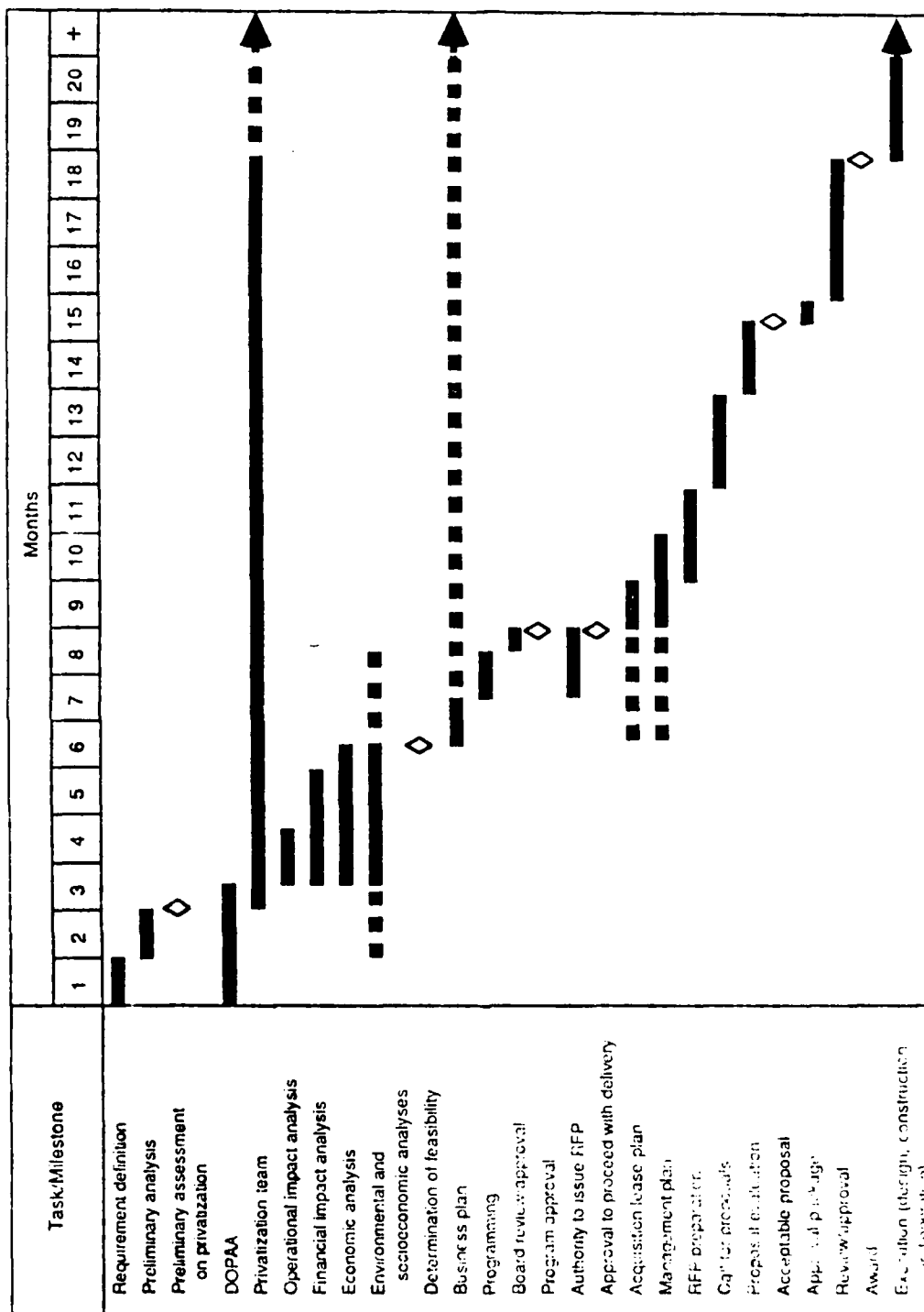
Congressional approval and funding (if required); and execution of the chosen alternative. Using this same process in pursuit of other privatization initiatives which may require special enabling legislation can help in developing a strong case supporting the enabling legislation. (5:1)

The process can be divided into three phases with major elements delivered in each phase shown in Figure 2. The three phases include project identification and evaluation, programming and approval, and delivery and execution. Figure 2 shows that each of the major elements is a complex undertaking requiring significant resources in terms of manpower and money. (20:4)

Project Identification and Evaluation	Project Programming and Approval	Project Delivery and Execution
Requirement identification Economic analysis Engineering analysis Planning Environmental analysis Socioeconomic analysis Financial feasibility analysis Local community coordination/support	Requirement documentation Business plan Program submittal Enabling legislation Fund source determination Congressional notification/ approval Authorization to issue Request for Proposal (RFP) Program design and construction input	Acquisition/lease plan Management plan RFP Source selection Final economic analysis Contract Lease/Companion Operating Agreement Design Construction Inspection Quality control Payment

Figure 2. Project Phases and Delivery Elements (20:4)

Figure 3 displays the major tasks that must be accomplished in working a privatization project with these tasks on a time line normally required for their accomplishment. As can be seen, the time required to work through the privatization process can exceed 20 months. Countless resources are required to accomplish these tasks over this time line.



Note: This is not a time line for obtaining new equipment or funding.

Figure 3. Privatization Time Line (20:24)

The first task in Figure 3, the requirement definition task, is reflected as a 30-day window. To achieve this critical function, and get the project ball rolling, a clear definition of purpose is essential. A team must be assembled and equipped with sufficient information and guidance at the beginning of task one to develop a valid programmable requirement.

The Problem

The problem being addressed by this study is to develop a set of criteria for project proponents to use in bridging the gap between requirements determination and concept development. This gap occurs very early in the first phase of the privatization process (Figure 2). On the time line (Figure 3) it occurs at the start of the second task, preliminary analysis.

Experience gained from working the projects discussed previously indicates that some projects start off "on the wrong track" in concept development and tremendous resources are wasted working subsequent tasks. For example, the Chanute cogeneration project required two Request for Proposal processes in order to arrive at a concept fully attractive to industry and the government. Experience also indicates that letting the free enterprise system exercise creativity may optimize the use of privatization in satisfying Air Force requirements. As an example, instead of initially stating the Chanute requirement as steam and then letting industry determine the least cost method for satisfying the requirement, concept developers overly specified how to satisfy the requirement. Although this initial problem was overcome in the second

RFP process, resources (time and money) could have been saved had this factor been recognized from the beginning. (21)

As a result of these and similar problems in other projects, a set of criteria needs to be developed to help decision makers move effectively from stated requirements to scoping potential solutions using privatization. Such a set of criteria will aid project proponents to execute the privatization process in less time, at lower cost. (21)

CHAPTER III

METHODOLOGY

The approach used to address the problem in this study involved selecting projects for analysis; conducting a review of project documentation; and interviewing Air Force experts on each project to determine the need, creative approach, problem solving techniques, and solutions used in each project. We performed an analysis to determine common conceptual and creative approaches and lessons learned. This analysis was then used to develop criteria for use by project proponents when initiating other privatization projects.

This chapter documents identification and selection of projects for the analysis, preparation of a guide for use in collecting data on each project, and the analysis framework used in deriving the criteria.

Selection of Projects for Study

All Air Force privatization projects comprised the universe of potential projects for study. With approximately 98 projects in some stage of development, it was necessary to narrow the number to be studied to a more manageable quantity.

Preliminary examination revealed that, although a number of privatization projects were under consideration or in various states of development, few were nearing fruition because privatization is a relatively "new business" in the Air Force. (9; 22; 23) We believed it would be prudent to limit the study to those privatization initiatives which have been successful in order to concentrate the analysis on those

projects which had been "tried and proven." In so doing, we could reduce the number of studies to a manageable level.

We defined a successful project as one which had been through the RFP or some other solicitation process and a contract had been awarded or contractual agreement reached that would result in a completed privatization project. Discussions with Air Force experts in privatization and further review of privatization projects using this definition revealed successful privatization projects in three facility categories as shown in Table 2. (9; 22; 23)

Table 2. Successful Privatization Projects

<u>Facility Category</u>	<u>Project</u>
Energy Production	Chanute AFB IL Galena AS AK MacDill AFB FL
Transient Quarters	Wright-Patterson AFB OH Nellis AFB NV
Military Family Housing (excluding 801 and 802)	March AFB CA Carswell AFB TX

It should be noted that family housing projects under Sections 801 and 802 of P.L. 98-115 have been excluded from Table 2. During the preliminary review of potential privatization projects, we found that well defined criteria had already been established for these projects. However, the nature of these criteria was such that they could only be applied to family housing projects using these two authorities. As a result, we limited the study to projects outside these two authorities for which criteria had not been published.

After the projects listed in Table 2 were selected for the study, it was necessary to identify experts on each project for purposes of interview and to provide project documentation for review. These experts, listed in Appendix A, were identified with the help of personnel in various MAJCOM Engineering and Services communities and the Privatization Strategies Program Office at the Air Force Engineering and Services Center.

Preparation of Data Collection Guide

After identifying projects for study and knowledgeable experts to provide information on project concepts and details, we developed the guide in Appendix B to provide a framework for collecting data and to help ascertain how privatization actions were developed. The content of the guide was developed using the researchers' judgment and experience, information derived in the preliminary review of privatization projects mentioned above, and discussions with URS Consultants, a consulting firm which has worked on several successful Air Force privatization projects.

(24) The content was validated through review by HQ USAF/LEEQ.

Model for Analysis

Information was collected using the data collection guide and we prepared a detailed synopsis (see Appendix C) for each project chosen for analysis. Each synopsis was then studied to determine conceptual and creative approaches which were used and to identify "lessons learned" that were pertinent to scoping successful privatization solutions to Air Force requirements. Project analyses were compared to determine the factors and "lessons learned" that were common to two or more of the projects and the common factors and "lessons learned" were

then arrayed categorically. The categories were labeled and identified as criteria that could help decision makers scope successful privatization solutions, given a valid requirement.

CHAPTER IV

CRITERIA DEVELOPMENT

This chapter includes an analysis of the projects selected for study and a discussion of the common factors which helped decision makers move effectively from stated requirements to successful privatization solutions. These factors were developed following the methodology outlined in Chapter III.

In assembling the documentation on projects in Appendix C and discussing details of project development with project managers, various common threads or factors emerged which had contributed to success of the projects. While these factors were present to some degree in all the projects, Figure 4 shows each project in which the factors were considered to be a major contributor to success of the project. The following sections provide a discussion of each factor and its relation to the projects studied.

Project Management Team Approach

After the project requirement has been defined in the Privatization Process discussed earlier in Figure 1, a preliminary analysis is required to identify the range of possible approaches to satisfy the requirement/need. From this point on in the process, the privatization solution will begin to evolve.

Experience gained by the project managers of all the projects studied indicated the need for a project management team at this point. This team is responsible for executing the process until completion.

LEVEL OF CONTRIBUTION H = High Degree S = Some Degree	PROJECTS						
	Energy Production			Visitors Quarters		Family Housing	
	Chanute AFB	Galena AS	MacDill AFB	Wright-Patterson AFB	Nellis AFB	Carswell AFB	March AFB
FACTORS							
Project Mgt Team Approach	S	H	H	H	H	H	H
Multi-Discipline Work Gp	S	H	S	H	H	S	H
Key Leadership Involved	S	S	S	H	S	S	S
Commitment of Resources	S	S	S	S	S	S	S
Beneficial to Government	H	H	H	H	H	H	H
Savings over SQ* and MCP**	H	H	H	S	S	H	H
Greater Value than MCP	H	H	H	H	S	S	H
Acceptable to Government	H	S	S	H	H	H	H
Legal and Environmental Sufficiency	S	H	S	S	S	S	S
MAJCOM, AF, DOD Support	H	S	H	H	S	S	S
Community Support	S	S	S	S	S	S	S
Support by Agencies Outside DOD	S	S	S	S	S	S	S
Acceptable to Congress	S	S	H	H	S	S	S
Attractive to Industry	S	H	H	H	H	H	H
Low Risk Perception	S	H	S	H	H	H	H
Adequate Profit	H	H	S	H	H	H	H
*Status Quo ** Military Construction Program							

Figure 4. Factors Contributing to Success of Privatization Projects Studied

Dynamic Leadership and Multi-Disciplined Team

Experience of all the project managers also showed that expertise of team members cut across many functional areas and, in some cases, was not available within the Air Force. Project expertise needed includes but is not limited to: engineering, general law, tax law,

contracting and contracting law, commercial finance, cost analysis, real estate development, economics, and user/operator representatives.

Since the focus of the team's work is on creative and innovative approaches to satisfy an Air Force requirement, a dynamic team leader with polished communication skills is essential. The individual must be able to plan, package, market, and implement proposals and function in various environments. These environments range from working group sessions to Congressional Hearing Rooms.

Key Leadership Involved

Since the focus is on creative and innovative approaches and because public and industry awareness of the project will likely increase rapidly as the analysis is begun, key base, MAJCOM, and higher level leadership need to be involved in and be kept abreast of the team's progress in developing the project. This factor was particularly important to the success of several of the projects studied. For example, as the local hotel industry's awareness level increased on the Wright-Patterson VQ project, a number of informal discussions were initiated by industry representatives with base and MAJCOM officials. The ability of these officials to adequately respond proved pivotal in obtaining community support, another essential factor which is discussed later.

Commitment of Necessary Resources

The privatization process discussed earlier and the following discussion of other factors highlight a tremendous amount of staff work that must be completed in order to deliver a successful privatization project. This staff work includes financial, economic, environmental,

and socioeconomic analyses as well as many presentations and discussions at all organizational levels in and out of government. All project managers indicated a need to recognize this requirement and to make an up-front commitment of the necessary manpower and money to successfully work the project to completion.

Beneficial to the Government

In all projects studied, we found that success depends on structuring the project in a manner that will achieve several outcomes. These outcomes include achieving a cost savings while normally providing higher value than the MCP alternative.

Cost Savings over Status Quo and MCP

Although the structure of business arrangements varied significantly between projects depending on which authority was used for a given project, one underlying requirement was for a privatization project to save money over the status quo. In addition, the life cycle cost of the privatization alternative had to equal or be lower than the traditional governmental method of acquiring the facility/service, the MCP. In the energy production facility category, the requirement to save money was codified in statute. Although the requirement to save money was not codified for the visitors' quarters and family housing categories studied here, saving money over the status quo and achieving privatization costs equal to or less than the MCP alternative became the strongest "selling points" in obtaining Air Force, DOD, and Congressional approval to proceed with the projects.

Provided Greater Value than MCP

In each project studied, the privatization solution at least met or satisfied a valid Air Force requirement with a level of service that would be expected from the MCP alternative. In most cases, the privatization solution provided greater value than would normally be expected through the MCP. For example, the cogeneration plants at Chanute and MacDill AFBs met the basic need for steam and provided generation of electricity which benefits the base by lower costs and increased electrical availability, thereby providing greater value than the MCP alternative which would only provide steam. Similarly, the VQ projects at Wright-Patterson and Nellis AFBs satisfied the basic requirement for lodging services and provided greater value through additional benefits such as food and beverage services, commercial hotel management, and many amenities found in mid-quality commercial hotels.

Acceptable to the Government

Analysis of the projects indicated that in order to be successful, the privatization venture must not only be beneficial to the government, it must also be acceptable to the government in various ways and at all levels. Project managers of all the projects believed failure to structure the projects to achieve acceptance would have scuttled the projects.

Legally and Environmentally Sufficient

Even though, in a privatization venture, the government is entering a quasi-partnership with industry wherein industry will own and operate the facility, the project must meet appropriate legal and environmental requirements levied on government rather than the private

sector. For example, in all projects studied, a competitive acquisition process was used because it is required of government even though industry norms may be different. Similarly, environmental assessments and other actions, including making environmental documentation available for public review and comment when appropriate, were accomplished following DOD guidelines to preclude protests which may have delayed or scuttled the projects. In fact, an environmental analysis was not accomplished initially for one of the projects studied and this project was held in abeyance until required actions were completed.

As a result, the privatization alternative must be structured so as to comply with appropriate legal, environmental, and other similar requirements levied on governmental agencies.

MAJCOM, Air Force, and DOD Support

As in any endeavor which requires Congressional approval, it goes without saying that MAJCOM, Air Force, and DOD support is first required. However, our analysis revealed a slightly different slant on this factor with respect to the projects studied. By providing a savings over the status quo; by achieving privatization life cycle costs equal to or less than the MCP alternative; by avoiding the need for MCP appropriations which would most likely be at the expense of some other Air Force project already in the MCP; and by providing a privatization alternative which achieved greater value when compared to the MCP, most MAJCOM, Air Staff, and DOD officials found the projects readily acceptable. However, during the project review and approval process, some officials raised the issue of where the money would come from to

pay the costs of the privatization alternative. The issue almost became a show stopper. For example, project feasibility would be questionable if a new Congressional appropriation or reprogramming between appropriations previously enacted was required to pay the cost of the privatization alternative. Privatization of the energy production facilities studied was not impacted because the money used to pay for utilities under the privatization alternative would come from the same appropriation that currently pays for utilities. These projects would actually result in a decrease in current expenditures for this account. Similarly, the VQ and family housing privatization projects would lead to reduced expenditures in the same accounts that currently pay to house military members elsewhere.

Although projects in this study were not terminated because of this factor, future projects must be structured so as to obtain MAJCOM, Air Staff, and OSD approval. This process will require consideration of factors not normally required in the traditional facilities acquisition process. The nature and circumstances of the project will dictate how to structure the project for approval.

Community Support

Since Congressional approval and/or action is required at one or more stages in the privatization process, community support or at least the lack of community opposition is essential. The Wright-Patterson and Nellis AFB VQ projects exemplified this factor. During the early stages of project development, various community groups expressed opposition to the projects because of perceived competition with businesses in the local community. Project managers and key leaders at both bases found

it necessary to expand analyses to encompass these concerns and to conduct extensive discussions with community leaders to effect withdrawal of community concerns which was required to achieve support of local US Congressional delegations discussed below.

On the other hand, community support for the Galena AS electrical service project took on a different perspective. In this project, the base's electrical requirements were combined with community needs, both to be supplied by a new power plant constructed by the city. In this case, the community was predisposed toward supporting the project.

In the March and Carswell family housing projects, community support was required for yet a slightly different reason. These projects were located on the periphery of the bases so that the entrepreneurs could lease family housing units to the private sector for a short term if military members were not available.

Suffice it to say that community support enhances but does not ensure project approval. However, strong community opposition will almost certainly lead to project disapproval.

Acceptable to Governmental Agencies Outside DOD

To obtain full concurrence of the Executive Branch prior to pursuing a privatization initiative, the project may need to be structured so that it is acceptable to Executive Agencies outside DOD. For example, the Office of Management and Budget (OMB) indicated an interest in the Wright-Patterson VQ project from the standpoint of potential impact on the Federal Budget. OMB officials were briefed on details of the project and did not interpose objection to proceeding

with the project because the entire financial risk was to be borne by the entrepreneur without government guarantees or fiscal obligations. Similarly, the Department of Labor initially objected to the structure of the VQ projects and advised that the Davis-Bacon and Service Contract Acts should be applied to the projects. Application of these Acts could have caused the entrepreneur to experience higher wage rates during construction and operation of the VQs. However, the Department of Justice ruled that the Davis-Bacon Act did not apply to leases of land and the Air Force was bound by the Department of Justice opinion.

If these projects had not been acceptable to these Executive agencies outside DOD, the Air Force would not have been able to proceed with them. The structure of the intended business arrangement was pivotal in achieving their concurrence.

Similarly, the project may need to be structured so that it is acceptable to local and/or state agencies. For example, the MacDill AFB Cogeneration project experienced a delay when the Tampa Electric company claimed that the initiative would result in a public utility and therefore rates should be subject to approval by the Florida Public Service Commission. The project has been held in abeyance pending a hearing by the Commission.

Acceptable to Congress

Since Congress must enact enabling legislation for privatization, appropriate money for DOD purposes, and approve Air Force real estate transactions in accordance with 10 U.S.C. 2667, final acceptability of a privatization project to the government rests with Congress.

Congressional approval of energy production facilities is normally not difficult to obtain because 10 U.S.C. 2934 requires investigation of privatization before an energy production plant can be considered for authorization and appropriation in the MILCON. However, projects using the unspecified authority of 10 U.S.C. 2667 discussed in Chapter I of this report require approval by the House and Senate Subcommittees responsible for MILCON Authorization Bills. In addition, similar Subcommittees responsible for MILCON Appropriations Bills may have a pro or con interest in a particular project.

As a result, the VQ and family housing projects using 10 U.S.C. 2667 as project authority were briefed extensively to appropriate subcommittee staff members and a hearing was held by one subcommittee in the House. In addition, support of local US Congressional delegations was required as a precursor to dealing with appropriate subcommittees.

Support by local delegations did not ensure approval by the subcommittees, but opposition from a local delegation would have made subcommittee approval much more difficult to obtain. For these projects to be approved, they had to be structured so that they were acceptable to all concerned.

Attractive to Industry

Since privatization is in essence a partnership between industry and government, a privatization project not only must be beneficial and acceptable to government, it must also be attractive to industry in order to have a deal at all. Several factors influence how attractive a project is to industry.

Low Risk Perception

From the industry's perspective, privatization is often attractive because it creates new markets and profit potential, is an innovative process, and could result in a long-term relationship between the private sector and government. However, privatization has many unknowns and some risk for industry. Perceptions of greater risk on the part of industry usually translate into higher costs and therefore reduced potential for the government to save money. As a result, the ability to attract industry to a project will be enhanced by structuring the deal to reduce their perception of risk. At the same time, perceptions of lower risk by industry should translate to lower cost for the government.

In the VQ and family housing projects, industry's perception of risk was lowered by preparing market analyses using historical data that showed high potential occupancy levels for the facilities. In addition, industry's perception of risk was also lowered for the family housing projects by locating them on the base perimeter and allowing units to be rented to the private sector when military members were temporarily not available. Similarly, although the government made no contractual guarantees about its future actions, the VQ projects were sited on the base perimeter to enable the property to be severed from the base and made available for public use if the project got into financial trouble some years in the future. For the energy projects, risk perception was low from the start because the government would be contractually obligated to purchase energy from the facilities.

Adequate Profit

To be attractive to industry, the projects must also provide industry the opportunity to generate a reasonable profit compared to alternative investment opportunities. This factor is closely associated with risk perception and if the opportunity for adequate profit does not exist, industry won't propose on the project.

However, this element may be influenced by other elements in the structure of the project. For example, a survey of industry during development of the VQ projects indicated the hotel industry normally derived part of its income by the sales of food and beverages. Including food and beverages as an optional item in the Wright-Patterson AFB VQ project resulted in lowering the daily rate by over \$3 per room while allowing industry to maintain a reasonable profit.

CHAPTER V

CONCLUSIONS

The factors discussed in Chapter IV are the criteria developed in this study. They are intended to help a project proponent bridge the gap between requirements determination and privatization concept development. The process of bridging this gap is one of creativity and innovation and is usually conducted in an environment of unconstrained thinking. These criteria, summarized below, are intended to help provide a framework for this unconstrained thinking so that the project may be "set up" for success from the start.

Four basic criteria emerged during the course of the study. They are: use a project management team approach to structure the privatization initiative; structure the initiative so that it is beneficial to the government; structure it to achieve acceptance by all elements of local, state, and federal governments; and structure the initiative to be attractive to industry.

Project Management Approach

A project management team approach should be used with a multi-disciplined working group, key leadership involvement, and an up-front commitment of resources. Achieving this criteria provides the necessary expertise and resources at the start of project development to set the project up for success from the very beginning. Achieving this criteria also forms the basis to successfully achieve the other criteria—first things first.

Beneficial to the Government

The project must be beneficial to the government and should be structured so that it provides a savings over the status quo, privatization life cycle costs equal to or less than the MCP alternative, and greater value than the MCP through benefits that the MCP would not normally provide.

Brainstorming by the multi-disciplined team may be a good way to initially tackle this criteria. Drawing on the expertise of industry consultants, conducting surveys of industry, and working with professional organizations such as the Society of American Military Engineers and the Privatization Council may also help achieve this criteria.

Acceptable to the Government

The project must be acceptable to the government and should be structured to attain legal and environmental sufficiency; support by the MAJCOM, Air Staff, and DOD; community support; support by state and federal agencies outside DOD; and acceptance in Congress by appropriate subcommittees and local US delegations.

Brainstorming by the team and obtaining outside help from consultants, professional organizations, legislative liaison offices in government and industry, and others can help achieve this objective. One of the most important challenges is to recognize up front in the privatization process that each possible solution to a requirement may have unique facets. Certain facets are likely to gore somebody's or some organization's favorite ox. The key is to brainstorm and anticipate outcomes of various courses of action and potential

opposition. Then structure the project to maximize the potential for acceptance by all those who may have an interest for or against the project. In short, maximize support and minimize opposition to ultimately achieve approval by the Administration and Congress.

Attractive to Industry

The project must be structured so as to be attractive to industry by providing a low risk perception and adequate profit. Brainstorming and seeking outside help from others mentioned above can also help achieve this criteria. Remember, in the final analysis, the project can achieve success only if it is attractive to industry.

These criteria are certainly not mutually exclusive. They must all be worked in tandem to successfully bridge the gap between requirements determination and privatization concept development. The bottom line is that in order to be successful in the end, a privatization initiative must be set up for success from the start. Application of these criteria should help achieve that end.

Recommendations

The following is a list of items that project proponents should consider when developing privatization projects.

- Appoint a good team of quality people, and select a project officer who will stay with the project, at least, through approval/funding.
- Ensure that environmental, financial, and socioeconomic issues are addressed.
- Keep good records and know the key players at all organizational levels.

- Structure the project so that it is acceptable to local and/or state agencies.
- Structure the project so that it is attractive to industry...minimize risk.
- Prepare a market analysis to indicate risk.
- Prepare a preliminary analysis in order to determine feasibility of the requirement as a privatization project.
- A good relationship with the local community leaders is necessary to help sell the project.

APPENDICES

APPENDIX A
PRIVATIZATION PROJECT PROPONENTS

Project	Contact	Orgn	Telephone
ENERGY FACILITIES	Mr Beason	AFESC/DEM	523-6361
	Mr Nixon	AFESC/DEQ	523-6167
	Capt Price	AFESC/DEM	523-6454
	Mr McCard	AF/LEEE	297-4082/6237
Chanute AFB	Ms Spivey	ATC/DEP	487-4658
Galena AS	Mr Hansen	AAC/DEE	(317)552-4519 -2117
MacDill AFB	Mr Barrow	TAC/DEM	574-3237
	Mr Crawley	(MacDill)	968-4467
TRANSIENT QUARTERS	Mr Baker	AFESC/DEQ	523-6238
	Mr Van Tassell	URS Corp	(805)965-6944
	Mrs Loeb	SAF/GCN	225-3928
Wright-Pat AFB	Mrs Warren	AFLC/DEP	787-3861
	Col Scambilis	WPAFB/DE	787-6214
	Mr Titone	WPAFB/DEE	787-4813
Nellis AFB	Mr Fisher	TAC/DEP	574-3187
FAMILY HOUSING	Col Thomas	AF/LEEH	225-0236
	Mr Munsie	AF/LEEH	227-0157
	LtCol Tucker	AF/LEEH	225-0466
March AFB & Carswell AFB	Col Currin	SAC/DE	271-2227
	Maj Cox	SAC/DE	271-6227
	Capt Marlin	SAC/DE	271-3373
	Mr Mantz	March/DEE	947-2046

(Source: Privatization Strategies Program Office, AFESC/DEQ,
Tyndall AFB FL)

APPENDIX B

DATA COLLECTION GUIDE

Purpose: The purpose of this guide is to provide a framework for collecting data on selected privatization projects to ascertain how the privatization concept was developed.

Outline:

1. How was the requirement/need determined?
2. Were any potential privatization actions considered and discarded? What? Why? When, in the process, were they considered?
3. How was the successful privatization solution derived? Who participated (experience, background)?
 - a. Did the MAJCOM and base collaborate?
 - b. Was it developed and given to the project proponent by others? By whom? How did they derive the solutions?
 - c. Was it a product of "free" or unconstrained thinking? What process (e.g., brainstorming, etc.), if any, was used? Who participated? What outside help was used? Who? How?
 - d. Was the solution "off the shelf" from industry? If so, how was it found? Survey" Contacts" Professional associations/journals, etc.? Other?
 - e. Was it derived through an iterative solicitation process with industry (i.e., responses to a request for proposal (RFP) led to a modified concept with issuance of a new RFP, etc.)?
 - f. Combination of the above?

g. What meetings or other contacts were made with local businesses and/or political groups/individuals? What was the initial response? Was it modified? How?

h. Other?

4. How was industry interest in the privatization action determined? Survey? Correspondence or meetings with industry representatives? Other?

5. Once the concept or basic structure of the deal was established and industry interest was ascertained, how were the details "fleshed" out?

a. By the application of normal contracting theory/law (FAR)?

b. Creative application of existing law?

c. Creation of proposed legislation?

6. Is there any other information that would help determine the criteria which should be applied in developing a proposed privatization action? What would project proponents change if they had it to do over?

7. Were there site visits to other (similar) projects?

8. What talents do project proponents believe are important for this type project? What were the costs (man-hours/dollars) to obtain a binding contract? Was there a working group? Size and makeup? How many people rotated through the group? Were lessons learned passed on?

9. How many inquiries/responses to solicitations were received? How many were technically responsive? How many quit before Best and Final Offer (BAFO)? Why? Was the final selection clear cut?

APPENDIX C

PROJECT SYNOPSSES

The projects selected for examination in this study were also centerpieces in the evolutionary process of privatization in the Air Force. This appendix includes a synopsis of each of these projects and describes how the concepts were developed. The appendix is organized by facility category and the discussion of each project helps form the basis for the analysis in Chapter IV of this report.

Energy Production Facilities

Chanute AFB IL Cogeneration Project

Chanute AFB has a requirement for a reliable source of approximately 503 BTUs of steam per year for space heating, domestic water heating, air conditioning, and process steam for other buildings. The requirement has been served by the existing on-base, coal-fired central heating plant built in 1940. The existing facility cannot be operated efficiently nor maintained effectively. Much of the equipment in the plant dates from the original construction and repair parts are no longer available. In addition, fuel efficiency of the existing boilers is only about 60 percent. (8:7-8)

The scope of the project identified for third party financing included the requirement to provide a 27-year reliable source of saturate steam at 150 PSI ranging from a yearly quantity of 300,000 MBTUs to 503,000 MBTUs with an hourly demand which can vary from 10,000 pounds of steam per hour to 163,000 pounds of steam per hour. (8:7-8)

Air Training Command (ATC) developed a proposal for a new plant to be constructed through the Military Construction Program (MCP). Construction through the MCP process was estimated to cost \$57.6M and life-cycle costs were estimated to total \$112.6M over a 27-year period. (8:7-8)

Since 10 U.S.C. 2394 requires investigation of privatization prior to submitting energy production plants in the MCP, ATC issued an RFP to solicit industry proposals on providing the base's steam requirement. The RFP did not restrict proposers on how to provide the steam. (8:7-8)

Two proposals were received in May 1984. They were evaluated by the Technical and Pricing Panels of the Source Selection Committee and both proposals were rejected. One proposal was rejected because the proposer did not submit a firm proposal in compliance with the RFP. Rejection of the first proposal created a sole source procurement situation with the remaining proposal. After lengthy negotiation, the second proposal was also rejected because it was too expensive.

The main reasons this first RFP process failed were the short response time allowed for industry preparation of proposals, limited competition, and the RFP was not attractive to the financial community especially regarding the recent changes in the tax laws.

After revisions, the RFP was reissued on 7 October 1986. One major revision was a change from a 30-year steam service period to a 27-year steam period with the first three years of the 30-year contract designated for plant construction. Another significant change permitted the use of natural gas as a primary fuel.

Three proposals were received and evaluated by the technical and pricing panels and, again, one was declared unacceptable due to noncompliance with the RFP. Best and final offers were requested from the remaining two and were received on 7 July 1987. The Technical Panel found both proposals to be acceptable and recommended that selection be made based on price comparison.

A difference in design concepts between the two proposals resulted in a large difference in price. The lowest priced proposal used a cogeneration plant with natural gas turbine generators. Electricity, the primary product, would be sold to a public utility and steam, a by-product, would be sold to Chanute AFB. The other proposal was based on a conventional steam plant with natural gas fired boilers. Although the pricing panel recognized the element of risk in awarding a contract to the cogeneration proposal, they saw the potential savings as worth the risk.

The cogeneration proposal was selected as the winning proposal. The plant would be built and operated at the entrepreneur's expense on government land leased to the entrepreneur. The entrepreneur would sell the plant's primary product, electricity, to a public utility using the authority of the Public Utility Regulatory Policies Act and would provide the by-product, steam, to meet the base's need. The life-cycle cost to the Air Force of this proposal was only \$14.1M since the proposer would receive over 97 percent of his revenue from the public utility company and under 3 percent from the government. This proposal resulted in a cost savings to the Government of approximately \$98.5M over the 27-year life cycle. (8:7-8)

Contract award is currently pending and is contingent on the selected proposer finalizing financing arrangements. Construction should start in the Spring of 1989 and the plant is expected to be in operation by December 1990 or early 1991. (25:2)

Galena AS AK Electrical Services Project

Galena AS, located on an island in Alaska, currently generates its own electric power requirements. The government owned and operated plant is the only available source of electrical power for Galena AS with the exception of a few emergency standby generators located on station. There is presently no interconnection with the City of Galena's Municipal Electric Utility.

The base requires 1700 kilowatts of peak net electrical demand with the two largest power sources out of service, a minimum aggregate generator capacity of 2833 kilowatts, and a 99.9 percent availability. (8:7-9)

The base electrical power plant is collocated with the base heat plant. The existing power plant consists of one 650 KW, three 600 KW, and one 300 KW generators. The power plant is operated by two civilians and four military personnel. There is no heat recovery system from the generators at this time. The central heating plant, which provides steam to all of the station's buildings, is totally dependent on electrical power for its operation. A significant increase in power requirements is anticipated and the current system is not able to meet the needs. The existing three 600 KW generators are 16 years old and hard to maintain. Replacement parts, which must be custom made, are extremely expensive and difficult to procure with a long delivery time.

To meet the power requirement, the government can build an addition to the existing power plant and install new generators that

will satisfy existing and future demand. Alaskan Air Command (AAC) developed an MCP project to modify and upgrade the existing power plant. Construction was estimated to cost \$1.0M for the facility and \$2.8M for equipment. Total life-cycle costs were estimated at \$12.67M. (8:7-9)

To comply with 10 U.S.C. 2394, an RFP was issued on 5 December 1986 to allow industry to prepare privatization proposals for providing electrical power for a 20-year period. The RFP specified electrical requirements but did not restrict proposers on how to meet the requirements. (8:7-9)

The economic analysis showed that of the eight proposals submitted for this project, five offered a lower total life-cycle, constant dollar, present value analysis amount than the government's estimate. The winning proposal, submitted by the City of Galena Municipal Power Authority, provided for consolidation of the base's electrical requirement and construction of a new power generating plant (off government property) with a scheduled completion date of October 1989. Power will be supplied by a 3-mile electric distribution system from the new plant to the base and the existing generator on Galena AS will be retained for emergency backup. The 20-year life-cycle cost for this privatization approach was \$8.75M, \$3.92M below the MCP alternative. (8:7-9; 26:26-31)

MacDill AFB FL--Cogeneration Energy Production Facility

Under 10 U.S.C. 2394, the Air Force proposed to allow a third party contractor to construct, operate, and maintain a cogeneration plant on MacDill AFB, FL. Electric power and thermal energy (chill water, hot water, and steam) generated by the facility would be

purchased by the base at a price below that currently paid to the commercial supplier, Tampa Electric Company. The plant would be capable of burning either natural gas or fuel oil. Existing underground storage tanks could be used if fuel oil was chosen as the primary fuel source. The cogeneration facility would generate the electrical power required to carry the base load and would connect directly to the base's electrical grid system using underground cabling. Additionally, it would provide heating and cooling service to 31 base facilities by capturing the normally wasted thermal energy and transporting it to serviced facilities. (27:i-iii)

The project includes constructing the main power plant, a cooling tower, 30 mechanical rooms near serviced facilities, and gas and steam distribution systems. Utilities (water, sewer, etc.) required to support the cogeneration plant would be provided by the base on a reimbursable basis.

In arriving at the decision to pursue the privatization solution, three other alternatives were considered as follows: status quo or take no action, construction of a conventional electric generation plant by the government, and construction of a cogeneration plant by the government. (27:i-iii)

The status quo alternative would not achieve the required level of energy security for the base. Numerous studies documented the vulnerability of off-base energy supply systems to disruptions that could seriously degrade mission accomplishment. As a result, the status quo alternative was not acceptable from a mission standpoint.

Construction of a conventional electric generation plant by the government was cost prohibitive when compared to a cogeneration plant. In addition, a conventional plant would be approximately 22 percent less energy efficient and would not be consistent with energy conservation or utility bill reduction goals.

Construction of a government owned and operated cogeneration plant was found to be similar to the privatization solution in most respects except economics. The privatization cogeneration solution was found to save \$104 million compared to the government owned and operated cogeneration alternative and \$62 million compared to the status quo alternative over a 30-year life cycle.

In addition to the alternatives outlined above, oil and natural gas fuel source options were considered and three delivery methods were studied for the fuel oil option. Barge and pipeline delivery methods for fuel oil were discarded because of environmental impacts on the coast and costs of constructing the pipeline respectively. The third fuel oil delivery method, which was found to be acceptable, consisted of two daily 5,000 gallon tank truck deliveries into two existing 25,000 gallon underground tanks adjacent to the proposed construction site. The natural gas fuel source option would require a 2.4 mile gas line to be installed between an existing gas main and the proposed facility. Trenches dug for this gas line could also be used for steam lines carrying thermal energy to some of the base facilities. (27:i-iii)

An RFP was issued which allowed both fuel source options. After evaluation of proposals, a contract was awarded on 10 June 1988 to

Empire Systems, Inc. for a gas fired cogeneration plant. The plant will supply 5 megawatts of electricity and thermal energy as discussed above.

Although the contract was awarded to Empire Systems Inc., Tampa Electric Company, the current electric supplier, protested the action through the Florida Public Service Commission on 30 September 1988. The basis for their protest was loss of revenue in excess of \$1 million annually. Further, Tampa Electric claims that the cogeneration contractor is a public utility and rates should be subject to approval by the Florida Public Service Commission. Construction is therefore on hold pending hearing tentatively scheduled for March 1989. (27:i-iii)

Transient Quarters

Wright-Patterson AFB--Visitors Quarters/Conference Facility

As mentioned previously, in early 1984 the Air Force Director of Engineering and Services (HQ USAF/LEE) directed the Air Force Engineering and Services Center (AFESC) to evaluate alternative approaches to provide Visiting Officer Quarters and a Conference Center at Bolling AFB in Washington DC. Early in this evaluation, command section interest at Air Force Logistics Command (AFLC) led to evaluation of a similar VOQ/Conference Center for Wright-Patterson AFB, OH in the same study. (12:2-1) Since political considerations mentioned earlier resulted in deferral of the Bolling AFB project, the discussion here is limited to the Wright-Patterson AFB project.

The study undertaken by AFESC and AFLC, with the help of a consultant contractor, was aimed at determining the most cost effective means of meeting the demand while providing the same or better quality accommodations to government travelers. The objectives of the study

were to "develop demand data, prepare an independent, defensible economic feasibility analysis, and to prepare a plan to satisfy demand in the most cost-effective manner." (12:2-1)

At the time the study was undertaken, military and DOD civilian employees performing temporary duty at Wright-Patterson AFB were housed in several different ways. If on base quarters were available, these official travelers were housed there and received \$25 per diem for food and incidentals plus reimbursement for the cost of the room, normally \$4 to \$6 per day. If on-base quarters were not available, these personnel were assigned to off-base contract quarters, which are hotels that have agreed to provide rooms, when available, to the government at specific rates. When assigned to contract quarters, government employees received \$37.50 for meals and incidentals and the government paid for the cost of the rooms. If neither on-base or contract quarters were available, the employees were issued certificates of nonavailability, obtained their own lodging, and received \$75 per diem for meals, incidentals, and lodging. (12:3-11)

Data derived from 1984 and 1985 records at Wright-Patterson AFB reflected that demand was not evenly distributed throughout the year. The data also showed that a 250-room facility would represent the optimum size for addition to the existing 606-room VOQ. Addition of such a facility would achieve about a 75 percent occupancy rate, well above the industry standard of 65 percent, but would not be able to accommodate all of the demand during one-half of the year because of cyclical and seasonal requirements. (12:3-12, 4-9)

After the optimal size facility of 250 rooms was established, a brainstorming session developed 17 possible alternatives to satisfy this requirement. These alternatives included a variety of on- and off-base concepts with both government and private financing approaches. Using a set of screening criteria "to identify the relative strengths and weaknesses of each concept" (12:3-25), these alternatives were narrowed to three primary alternatives for further study. These alternatives were:

1. Status Quo: Continued use of on-base government and off-base contract quarters, and issuance of nonavailability certificates, when appropriate.
2. Military Construction Program (MCP): Use the traditional MCP approach for government financing, construction and operation of a 250-room VOQ and accommodate occasional excess demand in off-base contract quarters, when available, and issue certificates of nonavailability when appropriate.
3. Private Sector Financing (PSF): Attract an entrepreneur to finance, design, construct, own and operate a 250-room on-base visitors' quarters (VQ). Accommodate occasional excess demand off-base as in the MCP alternative. (12:3-28)

These three alternatives were then compared in a life-cycle cost (LCC) analysis to determine the most cost-effective way to satisfy the requirement over a 35-year planning horizon. Cost estimates for the status quo alternative were collected from existing data. Cost estimates for the MCP alternative were calculated using known costs for government construction and operation of similar facilities. Developing cost estimates for the PSF alternative posed a challenge. The PSF alternative constituted an altogether new approach. Therefore, potential hotel services, amenities, and industry costs were unknown. (12:3-28 thru 3-29)

The first step in developing PSF cost estimates was a survey of the 60 largest US hotel companies to obtain information on design and

construction, financial and operating data, contractual issues, and industry's interest in the project. (12:3-17)

The information derived from this survey was then used in a pro forma model (finance, design, construction, operations, etc.) of a commercial hotel. This pro forma analysis yielded an estimated daily room rate for a 250-room PSF VQ. (12:3-30 thru 3-31) This room rate was in turn input to the LCC analysis of all three alternatives and the resultant analysis showed the PSF alternative to be the most cost effective alternative to satisfy the requirement. The analysis also showed that the PSF alternative would be economically viable for industry under the set of assumptions used in the model. (12:7-4)

On 25 July 1985, the results of this detailed analysis were briefed to HQ USAF/LEE and other Air Force decision makers in the Contracting and General Counsel communities. This briefing recommended proceeding with the study and provided three possible methods to execute the PSF alternative. The first was a long-term contract with an entrepreneur which would have required legislative authority because 10 U.S.C. 2809 (Test of Long-Term Facilities Contracts) had not yet been enacted. The second was a nonappropriated fund concessionaire contract which would allow an entrepreneur to use government land for the PSF facility in return for a share of the revenue to be paid to the entrepreneur. The third was an out-lease of government land to the entrepreneur under the existing authority of 10 U.S.C. 2667. The 40-year lease envisioned by Mr Grant Reynolds, Air Force Assistant General Counsel (Installations and Environmental Law), in this creative use of 10 U.S.C. 2667, would permit the entrepreneur to construct and

operate the PSF facility. (28:1-2) A 40-year term was chosen to enable the entrepreneur to fully depreciate the facility under Internal Revenue Service regulations.

The outlease of land under 10 U.S.C. 2667 was selected as the best implementation method because, unlike the other two methods, it would require the entrepreneur to assume the total business risk. (29) At the conclusion of the 25 July briefing, HQ USAF/LEE issued direction to prepare an acquisition and management plan for the PSF alternative using the outleasing approach. (28:1-2)

The business approach adopted for the project provided that,

As a condition of the lease, the entrepreneur will finance, design, construct, own, operate and maintain a visitors' quarters and conference facility primarily for use by military and civilian personnel performing official temporary duty at WPAFB. . . . The facility will be constructed, operated and maintained at no cost to the government. The government will neither guarantee occupancy nor make any other financial commitment in connection with the project. Air Force and other government travelers will have first right to use the facility. The entrepreneur will market excess capacity in the hotel to other travelers who either normally could gain entry to and remain on the base (e.g., military members and families on leave, members moving from one permanent station to another, retirees, etc.) or are authorized to do so by the WPAFB Commander. Lodging costs will be paid directly to the hotel by the travelers. Visitors traveling for the government will receive the normal per diem payments, as they do when they stay at any private hotel. (29)

The acquisition strategy chosen to execute the project was a source selection process using an RFP. To take advantage of industry's strengths and know-how in the hotel business, the Air Force decided to describe the desired facility and quality of service in very general terms (less than 3 pages) in the RFP. Proposers would be asked to submit detailed proposals in four volumes dealing with design and construction, operations and maintenance, management and experience, and

cost and financial data. The Air Force would use established contracting procedures to evaluate the merit of each proposal against a set of criteria established for that purpose. (28:1-14)

To ensure there were no "show stoppers" from industry's perspective and to continue fostering industry's interest, the draft RFP, including a sample lease, was circulated for industry review and comment. After the review process, minor adjustments were made in the RFP.

To this point, base and MAJCOM officials had discussed the project with community leaders who were supportive of the concept. With circulation of the draft RFP, industry and community awareness levels increased and some concern was expressed by a local hotel/motel operator about the project's impact in the community. This concern led to discussions in one of the local Chambers of Commerce. These discussions in turn led to inquiries to members of the Ohio Delegation in the US Congress. (30:9) As a result, the normal environmental analysis, which was ongoing at the time, was expanded to include an analysis of the socioeconomic impact the project would have in the area. The outcome of this analysis projected increased economic activity in the community. Further contact with community leaders and those expressing concern about the project led to withdrawal of the earlier community opposition. In retrospect, resolution of these concerns added between 10 and 13 months to the overall time required to obtain approval of the project. (30:9-10)

After completion of the study, the acquisition and management plan, and the expanded environmental analysis, the project concept was

presented to Air Force and DOD leadership, to appropriate committee staff of the Armed Services and Appropriations Committees of both Houses of Congress, and to staff members of the US Senators and Representatives from Ohio. (13) Based on general support for the project, the Air Force formally reported the intended real property transaction to Congress on 9 July 1986. (13)

In order to proceed with the project, approval was required by the Subcommittee on Military Installations and Facilities of the House Armed Services Committee and the Subcommittee on Readiness, Sustainability, and Support of the Senate Armed Services Committee. In August 1986, the Subcommittee on Military Installations and Facilities of the House Armed Services Committee deferred action on the project so that the Subcommittee could hold a more detailed hearing on the concept. In a subsequent hearing on 26 February 1987, the Subcommittee approved the real property transaction to outlease the land. The Subcommittee on Readiness, Sustainability, and Support of the Senate Armed Services Committee approved the real property transaction via letter dated 24 July 1987. (15)

After Congressional approval was given for the real property transaction, the source selection process was initiated. RFPs were mailed on 1 December 1987 and proposals were received from five companies. (31) These proposals were evaluated based on "technical merit, cost, and operations and maintenance factors," and the source selection determination was made. (30:i)

At this point, actual room rates for the winning proposal were entered into the life-cycle cost analysis of alternatives. The PSF

alternative was the most advantageous to the Air Force and would save approximately \$14.4M over the 40-year life when compared to the status quo alternative. (32)

While the source selection process was being finalized, the Office of Management and Budget (OMB) indicated an interest in the project from the standpoint of potential impact on the Federal Budget. OMB officials were briefed during July 1988 and did not interpose objection to proceeding with the project because the entire financial risk was to be borne by the entrepreneur without government guarantees or fiscal obligation. (33)

In addition, after the source selection determination had been made, but before announcement of same, the Department of Labor advised that the Davis-Bacon Act and the Service Contract Act should be applied to the project. However, the Department of Justice ruled that the Davis-Bacon Act did not apply to leases of land and the Air Force was bound by the Department of Justice opinion. (32) If these acts had been applied, the entrepreneur may have experienced higher wage rates during construction and operation of the VQ and the validity of his cost proposals could have been questionable.

On 23 September 1988, after all Administration hurdles were cleared, appropriate Congressional Subcommittees and members of the Ohio Delegation were notified of the source selection process outcome and were provided an updated economic analysis of the alternatives for satisfying the requirement. The source selection determination was also announced on 23 September 1988. (34)

Negotiations were subsequently entered with the winning proposer to finalize details and the outlease was signed on 29 December 1988. Construction should begin during the Spring of 1989 with occupancy in 12 to 18 months. (31)

Nellis AFB NV--Red Flag VQ

Based on apparent support for the Wright-Patterson AFB VQ project during early presentations to Congressional staff members, Tactical Air Command (TAC) developed a similar project for a Visiting Airmen Quarters to house Red Flag and other exercise participants at Nellis AFB NV. Four Red Flag, one Green Flag, and other exercises cover a total of 210 days per year and require 1,300 personnel to occupy off-base lodging. In addition, an average of 240 people per day occupy off-base lodging during non-exercise periods. (11)

TAC initiated a study in early 1986 that essentially replicated the Wright-Patterson VQ study. Analysis of demand data led to an optimum size facility of 350 rooms with quality of service, equipment, furnishings, and other features standard to the industry as found in hotels in the mid range of price and quality. However, this facility would be capable of double occupancy in each room for exercise periods whereas the Wright-Patterson VQ would be primarily single occupancy. (8:7-3)

The authority used for the Red Flag VQ is 10 U.S.C. 2667. Like the Wright-Patterson VQ project, the business arrangement includes a real property out-lease to enable an entrepreneur to construct, own, and operate the facility on government land with no financial or occupancy guarantees from the government.

Based on the Wright-Patterson VQ study, the TAC study included a life-cycle cost analysis of the three alternatives: Status Quo, MCP, and PSF. Costs of alternatives for the analysis were determined in a manner similar to the Wright-Patterson LCC analysis. A pro forma analysis of the PSF alternative again yielded a projected PSF room rate to input to the LCC analysis, which projected the PSF alternative to be the most cost efficient.

Base officials worked with community leaders to obtain local support and trade journal announcements were used to generate industry interest. Since presentations to Congressional staff on the Wright-Patterson VQ had served to introduce the concept sufficiently, extensive presentations were not required for the Nellis VQ project. However, it was necessary to obtain support of US Senators and Representatives from Nevada.

The intended real property transaction for the Red Flag VQ was reported to the appropriate subcommittees of the Senate and House Armed Services Committees on 27 February 1987. (14) The Subcommittee on Military Installations and Facilities of the House Armed Services Committee approved the transaction without a hearing and the Subcommittee on Readiness, Sustainability, and Support of the Senate Armed Services Committee approved the Nellis Red Flag transaction on 24 July 1987 along with the Wright-Patterson VQ project. (15)

A source selection process, similar to that described for the Wright-Patterson VQ, was then initiated. The RFP was issued on 5 October 1987 and eight proposals were received. (35) A life-cycle cost analysis of the alternatives using actual PSF room rates from the

winning proposal again showed the PSF alternative to be the most advantageous with a savings of approximately \$23.5M compared to the status quo over the 40-year life. (6:1-1)

Appropriate Congressional Subcommittees were notified and the source selection determination was announced on 23 September 1988. Negotiations are ongoing to finalize details of the lease and signing the lease is several weeks away. Construction should begin in the Spring of 1989 with occupancy in 12 to 15 months. (35)

Family Housing Projects

Carswell AFB TX Family Housing

Carswell AFB has a validated requirement for 350 additional housing units, 286 units to replace substandard Wherry Housing and the remainder to satisfy the need for additional houses. As a result of the fast delivery of the Fort Ord Mobile Home Complex and Congressional support for use of 10 U.S.C. 2667 for the VQ projects discussed previously, SAC decided to pursue outleasing 5.5 acres of unimproved land and 36 acres containing the 286 substandard housing units to an entrepreneur. As a condition to a 50-year lease, the entrepreneur would demolish the existing Wherry Housing and finance, build, maintain, and operate 350 family housing units. Rental fees would be paid by occupants who would continue to receive housing allowances. Although the government would provide no financial commitments or occupancy guarantee, the nominal cost land provided by the government was expected to provide lower cost housing than in the community. (3:7-5)

SAC performed an economic analysis which showed a life-cycle cost savings of \$14.8 million as compared to Military Construction

Program costs. This economic analysis and other rationale for the project were then used to secure HQ Air Force and Congressional concurrence to proceed in a manner similar to the VQ projects discussed previously. The intended real property transaction was reported to the appropriate Congressional Subcommittees on 18-February 1987. (19) After necessary approvals were obtained, an RFP was issued on 24 July 1987 containing desired numbers of one-, two-, and four-bedroom units with maximum rental rates and minimum square footage for each. Three proposals were received and evaluated and a source selection determination was made. The source selection determination was

. . . based on technical merit, rental structure formulas, financial abilities, design, operation and maintenance, management, experience and a plan for demolition of substandard MFH units with asbestos containing materials. (36)

Letters were sent to proposers on 5 April 1988 concerning the source selection determination and additional negotiations have been ongoing with the winning proposer since October 1988. These negotiations were nearing completion in December 1988 and the lease should be signed in early 1989. Designs and entrepreneurial financing commitments are expected to be finalized by September 1989. The first units should be completed and available for occupancy by April 1990. The final units should be completed by May 1991. (36; 37:4)

March AFB CA Family Housing

March AFB has a validated requirement for 682 family housing units. To satisfy the requirement, SAC decided to pursue outleasing 126 unimproved acres using 10 U.S.C. 2667 in an identical concept to that for Carswell AFB.

The proposed project will replace 582 Wherry Family Housing units and provided an additional 100 units for a total of 682 units. The additional units will house Junior accompanied enlisted personnel.

To attract entrepreneurs to this venture, these facilities were sized to achieve full occupancy. In addition, by locating the units on the periphery of the base, the entrepreneur would be allowed to lease units to the private sector for a short term if military members are not available. Fire and police protection and other services would be provided by the local community.

A life-cycle cost analysis reflected a potential life-cycle cost savings of \$26.6 million as compared to the normal military construction process. Source selection would be through a competitive process based on rental rates and other factors such as quality of development, maintenance, and operations.

Concept development, obtaining necessary approvals, and issuing the RFP were worked concurrently with and by the same team as the Carswell AFB project. (8:7-4) The intended real property transaction was reported to the appropriate Congressional Subcommittees on 16 February 1987. (18)

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